JOB DESCRIPTION

ENGINEERING TECHNOLOGIST – CAPITAL PROJECTS

POSITION SYNOPSIS AND PURPOSE

Reporting to the Director of Public Works, the Engineering Technologist – Capital Projects is responsible for completing all pre-engineering surveys, including design drawings and specifications, providing cost estimates for proposed construction and maintenance projects, and for budgeting and long range planning for road, bridge and building needs. The Engineering Technologist – Capital Projects prepares tender and construction contract documents and performs construction inspections as required on capital road projects, prepares progress reports and authorizes payment certificates. The duties for this position will be performed within the legislative and regulatory standards set out in the applicable Provincial and Municipal Acts and will be consistent with the Operational Policies and By-Laws of the County of Haliburton.

MAJOR RESPONSIBILITIES

Description	Approx. Time Spent (%)
Engineering Surveys and Inspections • Schedules and completes all pre-engineering surveys for proposed maintenance and construction work. • Provides layout and project supervision for specialized projects or specific maintenance procedures such as culvert or sewer work. • Performs construction inspection as required on capital road projects including construction layout, measuring of material quantities and preparation of field documentation. • Prepares progress reports and authorizes payments with approval from the Director of Public Works.	35%
Engineering Design • Organizes and carries out engineering design work including production of drawings, calculation of quantities, and preparation of contract documents for construction projects using AutoCAD Civil 3D. • Provides cost estimates for proposed construction and maintenance projects and budgeting and long range planning for road, bridge and building needs. • Participates in the acquisition, installation and evaluation of engineering and database software and required computer equipment. • Prepares required plans and agreements for property acquisition. • Prepares County By-laws relating to construction and maintenance operations.	35%
Project Management • Obtains approvals required for construction projects and arranges any necessary environmental assessments and/or public notification, including organizing public meetings. • Prepares tender documents, attends tender openings, summarizes and analyzes tender submissions and attends preconstruction meetings. • Reviews and recommends approval of payment certificates.	20%

Miscellaneous • Responds to public inquiries regarding above activities and other Department operations as appropriate. • Participates in the routine inspection and reporting/updating of the road needs database. • Assists Engineering Technologist - Operations and Approvals as required to cover vacations, illness or periods of heavy demand. • Participates in the recruitment process for seasonal survey/design staff when required. • Maintains complete computerized records of roads and property plans. • Assists the Director of Public Works with the road, bridge and building asset management plan. • Participates in winter maintenance activities, including culvert thawing, flagging and patrolling as may be required from time to time to complement existing winter maintenance crews. • Other duties as assigned.	10%

*Note: All activities are expected to be performed in a safe manner, in accordance with the Occupational Health and Safety Act and its Regulations, along with Corporate Safety policies, procedures and programs. In addition, all necessary personal protective equipment must be used and maintained in good condition.

DECISION MAKING AND INDEPENDENCE

a) List up to 3 examples of the types of decisions that are made or issues/situations that are dealt with on a regular basis and how judgement is used to resolve them:

1. Scheduling and completion of engineering field work for construction projects.
2. Construction techniques and practices to be used on site.
3. Production of plans and profiles for road construction with Auto CAD Civil 3D.

b) List up to 3 examples of situation or problems that are referred to the supervisor for direction or resolution:

1. Creation of 10 year capital roadwork plan.
2. Training and informational workshop attendance.
3. Setting priorities for engineering project work.

REQUIRED TRAINING

- Orientation which includes (all employees):
  - All Corporate Policies/Procedures
  - WHMIS GHS Training
  - Respect in the Workplace
  - MOL Worker H & S Training
  - AODA
- Any additional training required:
  - First Aid

MINIMUM QUALIFICATIONS (must have)

a) Education (degree/diploma/certifications)

- College diploma in Civil or Survey Technology or equivalent alternative education and municipal experience.

- Valid G Driver's Licence.

b) Experience

- 2-3 years of related experience preferably in a municipal environment.

c) Knowledge/Skill/Ability

- Knowledge of Total Station survey and GPS technology.
- Proficient in Civil 3D-AUTOCAD, Arc Map, Microsoft Office Suite.
- Knowledge and understanding of proper construction inspection processes.
- Title Searching and legal survey experience/knowledge
- Excellent communication (presentation, oral, written) and interpersonal skills.
- Excellent organization and prioritization skills.
- Knowledge of Health and Safety practices and legislation.
- Ability to work in a consultative manner.
- Ability to operate a chainsaw is considered an asset.

PREFERRED QUALIFICATIONS (asset)

- Qualifications required for membership in OACETT or Construction Inspection considered an asset.

WORK SETTING

CONTACTS

Frequency Legend
Constant – every day for most of day
Frequent – daily
Regular – weekly
Occasional – bi-weekly to monthly

Contact	Frequency	Nature of Interaction
Director of Public Works	Frequent	Consultation, updates on progress, provide technical information.
Engineering Staff	Regular	To coordinate activities and share technical information.
Administrative Staff	Frequent	Computer use, technical assistance
Patrol Superintendents	Regular	To receiving and provide information, to provide layout and technical assistance.
Public	Occasional	To respond to public inquiries or provide project impact info.
Public Agencies	Occasional	To receive directives and approvals, provide updates on project status. Agencies include Hydro, Bell, MTO, MNRF.

WORK CONDITIONS/PHYSCIAL/MENTAL EFFORT

Please check off all that apply

Frequency Legend
Constant – every day for most of day
Frequent – daily
Regular – weekly
Occasional – bi-weekly to monthly

1. Hours of Work

Normal: Monday to Friday, 8:00 am – 4:30 pm	☒
Evenings/Weekends	☐
On-Call	☐
Over-time (How often? Expand below)	☐

Examples: Typical weekly schedule is 8:00am – 4:30pm, Monday to Friday. Very occasional requirement to attend meetings on weekends or evenings.

2. Work Environment

	Constant	Frequent	Regular	Occasional	Percentage
Indoors	☐	☐	☒	☐	**60 %**
Outdoors	☐	☐	☒	☐	**40 %**
					=100%
Attend internal/external meetings	☐	☐	☐	☒	**<5 %**
Time spend travelling	☐	☐	☒	☐	**<5 %**
Frequency of interruptions	☐	☐	☐	☒	**<5 %**
Interaction with irate/aggressive clients/customers	☐	☐	☐	☒	**<5 %**

Examples: Most work tasks completed in a climate-controlled office environment. Some work tasks require completing work outdoors with some exposure to inclement weather.

3. Hazards

	Constant	Frequent	Regular	Occasional
Noise	☐	☐	☐	☒
Fumes	☐	☐	☐	☒
Dirt, Dust	☐	☐	☐	☒
Hazardous chemicals	☐	☐	☐	☒
Disagreeable weather conditions	☐	☐	☐	☒

Examples: Most work completed in office, some work tasks completed on work/construction sites with some exposure to dust, dirt, noise and a weather.

4. Physical Requirements

	Constant	Frequent	Regular	Occasional
Operating and/or maintaining vehicles and equipment	☐	☐	☒	☐
• Standing	☐	☐	☒	☐
• Sitting	☐	☒	☐	☐
• Walking	☐	☐	☒	☐
• Climbing	☐	☐	☐	☒
Requirement to lift objects (40 lbs)	☐	☐	☒	☐

Pushing and/or pulling objects to complete tasks	☐	☐	☒	☐
PPE worn on a regular basis (list type):				
• Boots	☐	☐	☒	☐
• Vest	☐	☐	☒	☐
• Hard Hat	☐	☐	☒	☐
Types of tools used (list type):				
• Laptop	☐	☒	☐	☐
• Cell Phone	☐	☒	☐	☐
•	☐	☐	☐	☐

Examples:

5. Mental Requirements

	Constant	Frequent	Regular	Occasional
Requires awareness of surroundings	☐	☐	☒	☐
Visual effort required on a concentrated basis	☒	☐	☐	☐
Requirement to listen attentively	☐	☒	☐	☐

Examples: Visual effort required to design and review work plans, calculate quantities and prepare contracts. Some work tasks completed on construction sites with need to be aware of surroundings.

EXPERIENCE

Competence should be achieved by a new person possessing the noted education and skills in two (2) years.

POSITION CLASSIFICATION

Position Title: Engineering Technologist – Capital Projects

Department: Public Works

Work Location: Administration Office

Reports to (Direct): Director of Public Works

Position(s) Supervised Directly: N/A

Position(s) Supervised Indirectly: N/A

Effective Date: October 2020

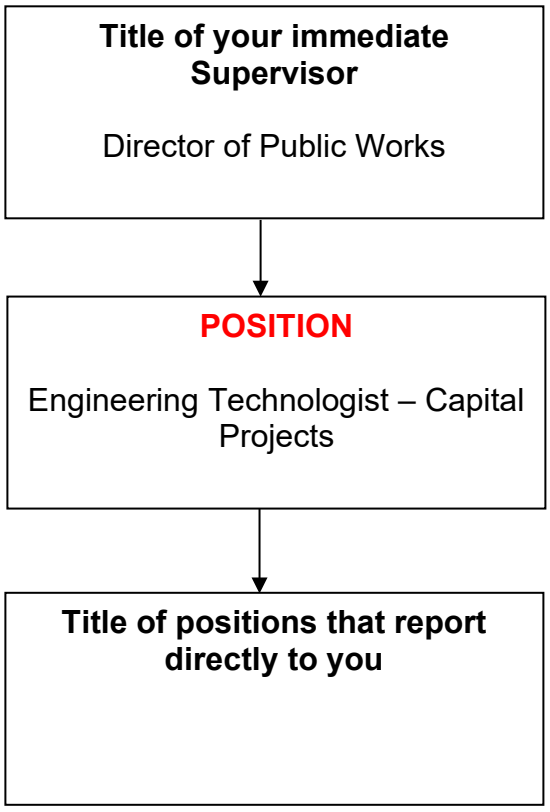
Revision Date:

Salary Range: As per collective agreement.

Hours Per Week: 40

ORGANIZATIONAL CHART

List the reporting relationship of this position to others within the immediate department.



Note: The foregoing is intended to outline the general description of duties and responsibilities for this position. It is not intended nor should it be interpreted as a complete inclusive description.